



**OCTOBER 26, 2012**

**Wayne State University**

**Detroit, Michigan**

## **SPEAKER BIOS**

### **KEYNOTE SPEAKERS**

#### **Carrie Majeske, Manager, Product Sustainability – Ford Motor Company**

Carrie Majeske is Manager, Product Sustainability at Ford Motor Company and has been leading in this role since November 2007. Ms. Majeske is responsible for developing global product sustainability plans, engaging functions and regions across the company. Her work is presently focused on Sustainable Materials, Product CO<sub>2</sub> Strategies and Life Cycle Assessment. Prior to this appointment, she held a range of planning, engineering, and program management positions within Ford during her 28 year tenure with the Company. Ms. Majeske earned a B.S. in Mechanical Engineering and an MBA from the University of Michigan.

#### **Dr. Robert Peoples, Former Director of the American Chemical Society Green Chemistry Institute**

As former Director, Dr. Peoples drove the implementation of the principles of green chemistry across the global chemical enterprise. Dr. Peoples has more than 35 years of experience in both the private and NGO sectors, giving him valuable insight into the chemical industry. Immediately prior to becoming Director of the ACS Green Chemistry Institute®, he served as Sustainability Director for the Carpet & Rug Institute, Executive Director of The Carpet America Recovery Effort (CARE), and President of the Environmental Impact Group. Preceding this position, Bob was Director of Carpet Sustainability and Market Development at Solutia, Inc., where he was actively involved in carpet recycling and negotiations that led to the formation of CARE and carpet-related health and indoor air quality issues. While there, he helped found the Board of Directors of CARE. In these various roles, Bob served to integrate a wide variety of initiatives that deal with sustainability on a national level. His efforts spanned new business development, new product and technology development, technology licensing, and the creation and implementation of a unified national sustainable carpet standard. He is an internationally recognized speaker in the areas of sustainability, standards, innovation, and carpet reclamation. Dr. Peoples holds a bachelor's degree in mathematics and chemistry from Montclair State University in New Jersey and a Ph.D. in physical organic chemistry from Purdue University. He serves on several local and national boards including the Carpet America Recovery Effort, Chemical Sciences Roundtable of the National Academies of Science, Green Ribbon Science Panel, State of California Department of Toxic Substances.

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**Dr. Carl Anderson , Associate Dean for Research and Graduate Programs – College of Engineering, Michigan Technological University**

Presentation: *Driving Engineering Curriculum to Meet Industry Demand*

Dr. Carl Anderson serves as the Associate Dean for Research and Graduate Programs in the College of Engineering at Michigan Technological University. He has over 30 years of experience as an educator in the engineering field and has been a collaborator on numerous industry publications and patents. Carl serves on the Michigan Academy for Green Mobility Alliance (MAGMA) Governing Board and Michigan Technological University helped launch MAGMA in 2008, providing the first MAGMA endorsed curriculum. In addition to his experience in education, Dr. Anderson co-founded Infrared Telemetrics, Inc., a company that makes research instruments used in engine development and testing to help maximize engine efficiency and performance while minimizing emissions. Dr. Anderson holds a BS in Mechanical Engineering from Michigan Technological University, an MS in Mechanical Engineering from Stanford University, and a PhD from the University of Wisconsin-Madison.

**Alexi Ernstoff, Researcher – University of Michigan**

Presentation: *Consumer Product Exposure in a Life Cycle Assessment Framework*

Alexi Sara Ernstoff has a bachelor of arts in geology from Bryn Mawr College and a master of science in engineering from University of Michigan. She has worked as a professional science educator at the Museum of Science, Boston and science news reporter on New England Cable News where she gained interest in personal care products. Ms. Ernstoff's master's research focused on the biological removal and transformation of pharmaceuticals and personal care products during wastewater treatment. Since then she's moved "up the pipe" and has been exploring direct impacts of products (instead of what happens after flushing). How are chemicals in the products we use daily influencing our health on a large scale? She is interested in ways to disseminate a science-based environmental message to the general public to help people live happy and healthy lives. Ms. Ernstoff performs as a musician as part of Rap for Food in Ann Arbor and Detroit, Michigan, an organization hoping to promote sustainable and locally sourced foods through youth empowerment and actively supports community gardening and local organic farming.

**Rich Helling, Associate Director, Sustainability/Life Cycle Assessment – The Dow Chemical Company**

Presentation: *Advancing Green Chemistry through Education and Research and Development Policy in Higher Education and Beyond.*

Rich Helling has spent 25 years in manufacturing, process R&D, and EH&S leadership positions at The Dow Chemical Company. Currently he is Associate Director for [Sustainability](#) at Dow, focusing on Life Cycle Assessment for Dow products. Prior to this, Rich served as Senior Technical Manager of the Process Development and Analysis Group within the Process Chemistry & Development Department. Before joining Dow, Rich served as a Station Director of the David H. Koch School of Chemical Engineering Practice at MIT. Rich is well known for his expertise in process R&D including distillation and reactor design. He has also led the development of methods to measure sustainability and environmental footprint, and has published a number of Dow reports and external articles on life cycle assessment. Rich has a B.S. in engineering from Harvey Mudd College and M.S. and Sc.D. degrees in chemical engineering from MIT.

**Dr. Yinlun Huang, Professor – Chemical Engineering and Materials Science, Wayne State University**

Presentation: *Multiscale Manufacturing Sustainability: Challenges and Opportunities*

Dr. Yinlun Huang is a Professor of Chemical Engineering and Materials Science at Wayne State University. His main areas include multiscale complex systems science and engineering, engineering sustainability, and integrated material-product-process systems engineering. He has published widely in these areas, and delivered numerous invited speeches in universities, national labs, and industries and plenary/keynote speeches at national and international conferences.

**Dr. Paul Hunt, Senior Associate Vice President for Research and Graduate Studies – Michigan State University**

Presentation: *The MSU Bioeconomy Institute and the Emerging Bioeconomy Sector in Michigan*

Dr. Paul M. Hunt received his doctorate in theoretical chemistry from Oxford University, where he held a Rhodes Scholarship, following 1975 BS degrees from MSU in mathematics and chemistry. After an NSF National Needs Postdoctoral Fellowship at Harvard University, in 1979 Dr. Hunt joined the faculty at MSU, where he is a Professor in the Department of Chemistry. His research focuses on non-equilibrium thermodynamics and molecular scattering. Dr. Hunt began administrative work in information technology, culminating in service as Vice Provost. He served for fifteen years on the Board of Directors of the MERIT Network, Inc., including four as chairperson. Dr. Hunt was named Senior Associate Vice President for Research & Graduate Studies in 2009. He represents MSU on the Board of Directors of the Southern Astrophysical Research Telescope (SOAR), which he serves as Treasurer, and he oversees Research Facilitation & Dissemination, the MSU Press, and the MSU Bioeconomy Institute in Holland, Michigan. He is the principal investigator on the Great Lakes' region i6 Green Challenge project, which is funded by EDA and EPA and hosted at the MSU Bioeconomy Institute.

**Dr. Dalila Kovacs, Associate Professor of Organic Chemistry, Grand Valley State University**

Presentation: *The Green Chemistry Commitment*

Ms. Kovacs was trained as a physical organic chemist (PhD, Michigan State University, 1998) specializing in mechanistic aspects of organic reactions and short-lived intermediates, which lead to her involvement in renewable feedstock usage for commodity chemicals synthesis. The use of corn-derived feedstock, instead of oil, to produce ethylene and propylene-glycols (postdoctoral work, Chemical Engineering Department, MSU, 1999-2003) exposed her to the green chemistry way of thinking and steered her interest toward the green aspects of synthesis and its industrial applications. Dalila involves her students in research on mechanistic aspects of biomass-derived alcohols as renewable feedstock for commodity and specialty chemical production. Since her appointment ('03) at GVSU, Dalila worked actively toward including green chemistry in the curriculum. Dalila received her equivalent of Master in Education at Babes-Bolyai University in Cluj-Napoca, Romania (1986) and her B.S. in chemistry from the same Romanian university.

**Dr. Vijay Mannari Professor of Polymers and Coatings Technology – Eastern Michigan University**

Presentation: *Soy-based Polymer Building Blocks – A Sustainable Platform for Advanced Coatings*

Dr. Vijay Mannari earned his Ph.D. in Polymer Chemistry from Sardar Patel University in India. He is also a qualified chartered scientist and certified project management professional from Cornell University. Prof. Mannari has held various positions in industry and was Product Development Manager in ICI paints before he joined Eastern Michigan University (EMU). He is the recipient of many EMU and professional awards for his

outstanding teaching and research accomplishments. He has published more than 35 research papers and holds 5 patents. His research interest includes use of renewable materials in polymer and coatings, sol-gel chemistry, UV-cure coatings and study of structure-property relationship in polymers. Prof. Mannari is currently serving on the Board of Detroit Coating Society.

**Dr. Mark Mason, Director, School of Green Chemistry and Engineering – The University of Toledo**

Presentation: *Greening the Curriculum at The UT School Green Chemistry and Engineering*

Mark Mason is the Founding Director of the School of Green Chemistry and Engineering (SGCE) at The University of Toledo. He provides leadership and vision for the SGCE and is responsible for developing strategies and plans for implementing the research, academic, and commercialization missions of the new school. Dr. Mason is a synthetic chemist specializing in organometallic chemistry and homogeneous catalysis. He received his Ph.D. from Dr. John Verkade at Iowa State University and served as a postdoctoral associate with Dr. Andrew Barron at Harvard University. Dr. Mason's research interests include ligand design and development of catalysts and cocatalysts for the polymerization of alkenes and cyclic monomers. He currently collaborates with an industrial sponsor on conversions of biomass to chemicals.

**Dr. Manish Mehta, Executive Director – Industry Forums & Sustainability**

Presentation: *Enabling Sustainable Design & Manufacturing Collaborations*

Dr. Manish Mehta is Executive Director of Industry Forums & Sustainability at the National Center for Manufacturing Sciences, the nation's largest cross-industry manufacturing R&D consortium, based in Ann Arbor, Michigan. Manish obtained his B.S. degree in Mechanical Engineering from Bangalore University, India, followed by M.S. and Ph.D. degrees in Industrial Engineering from the University of Cincinnati, OH. He completed the University of Michigan Stephen M. Ross Business School's Executive Program, specializing in technology strategy. He has over 60 publications, including invited talks, authorship of three successive studies of nanotechnology commercialization trends in the US (2003, 2006, 2010), and a chapter in the Nanomanufacturing Handbook (Taylor & Francis, 2006). He served two terms on the National Academy of Sciences Board on Manufacturing and Engineering Design, and on two multi-year study panels with the National Research Council on lightweighting materials and best design/manufacturing practices for military applications. He was Peer Review Director of Michigan's 21<sup>st</sup> Century Jobs Fund 2008 Business Plan Competition. He is the secretary of the 2012-2013 ASM International Detroit Chapter Executive Committee, a Fellow of the Engineering Society of Detroit (ESD) and also active in the Society of Manufacturing Engineers (SME Nanotech Forum and Journals Committee), and Society of Automotive Engineers (Non-Ferrous Committee).

**Angela Miller, Deputy Director – National Pollution Prevention Roundtable**

Presentation: *Safer Chemistry Challenge Program to Reduce Toxic Chemical Use*

Angela has worked for the National Pollution Prevention Roundtable for five years as Administrative, then Deputy Director. Her work involves activities ranging from member outreach, event coordination, marketing and outreach, administration, fundraising, and project management. Angela earned a BS from Michigan State University in Environmental Policy and a Masters in Public Administration from Grand Valley State. Her prior related work was an internship for the City of Muskegon in economic development for the downtown district.

**Greg Moss, Training and Instructional Design Specialist – DENSO International America, Inc.**

Presentation: *Driving Engineering Curriculum to Meet Industry Demand*

Greg Moss has over 35 years of experience in corporate training and development, mostly within the automotive industry. With a background that includes technical and management skill areas, he has continuously sought to bring the most relevant and up-to-date resources to meet the rapidly changing needs of the technical community. Having been involved in the Michigan Academy for Green Mobility Alliance (MAGMA) shortly after its formation, and currently serving as co-chair of the MAGMA Governing Board, Greg has been active in identifying the skill requirements and educational needs of the "green mobility" industry and aligning those with resources from educational institutions, training providers, and governmental organizations. Greg is employed in the training department of DENSO's North American technical center and marketing offices. He is a Certified Performance Technologist and holds a BA Education in mathematics from the University of Michigan and an MBA from Midwestern State University, Texas.

**Dr. K. Y. Simon Ng, Associate Dean for Research and Graduate Studies, Wayne State University**

Presentation: *Sustainable Next Generation Biofuel Production*

Dr. Ng received his BSE, MSE, and PhD in chemical engineering from the University of Michigan, Ann Arbor. In addition to his work as Associate Dean, he is also currently a Professor of Chemical Engineering and Materials Science of WSU, the founding director of WSU's Graduate Programs in Electric-drive Vehicle Engineering and in Alternative Energy Technology, and the director of the WSU/NextEnergy National Biofuels Energy Laboratory. He also served as a Visiting Scientist with General Motors Research Center and as a Visiting Professor in the Department of Chemical and Environmental Engineering at the National University of Singapore. His research interests include advanced battery, alternative fuels, environmental and fuel conversion catalysis, polymers, smart sensors, and biomedical devices. Professor Ng has received funding from the National Science Foundation, Department of Energy, 21st Century Job Fund, Michigan Life Science Corridor, NextEnergy, American Chemical Society, Engineering Foundation, Ford, GM, Exxon, among others. He has published and presented over 350 research papers. Professor Ng has also served as the President of the Michigan Catalysis Society, and received several awards including the Career Development Chair Award, and President's Award for Excellence in Teaching from WSU; a Gershenson Distinguished Faculty Fellow Award, and a Distinguished Faculty Award from the Michigan Association of Governing Boards of State Universities. He is a licensed Professional Engineer in the State of Michigan. Dr. Ng is a member of Council of Energy Research and Education Leaders, American Institute of Chemical Engineers, American Oil Chemists Society, North American Catalysis Society, and American Society for Testing and Materials. Recently, he served as a special advisor to the Michigan Renewable Fuel Commission; and received the 2011 Michigan Green Chemistry Governor Award.

**Avani Patel, Associate Director, Dow Energy Material, Research and Development – The Dow Chemical Company**

Presentation: *Dow Energy Materials: Developing and Commercializing Energy Storage Solutions in Michigan*

Avani Patel is Associate R&D Director for Dow Energy Materials. In this role, she leads the research and development of next generation cathode and anode materials for lithium-ion battery applications. Avani is involved with the strategic decision making for the R&D programs and successful implementation of DEM products into manufacturing. Avani previously held a number of technical and management positions at Dow, including Senior Technical Manager for Reaction Engineering and Technology leader for Biosciences. Avani has a bachelor's of science degree in Chemical Engineering from Michigan State University, a bachelor's of science degree in Biochemistry from St. Xavier's College of Gujarat University, India and Post Graduate Certification in Medical Technology from Gujarat Cancer Research Institute, India. She is also a certified six sigma black belt.

**Dr. Sudhakar G. Reddy, Sustainability Coordinator – Office of Campus Sustainability, University of Michigan**

Presentation: *Sustainable Lab Recognition Program at the University of Michigan*

Dr. Sudhakar Reddy obtained his Ph.D. in Analytical Chemistry in 1980 from National Chemical Laboratory, India and moved to Utah State University as a NASA post-doctoral fellow. After holding various positions, he moved to the University of Michigan in 1994. As Sustainability Coordinator, Dr. Reddy has developed and executed several sustainable programs to benefit the U of M community. The Sustainable Lab Certification program is one among them that received great attention across the campus. His passion is green chemistry and his compassion is sustainability. Dr. Reddy is working with various schools and colleges to promote green chemistry and introduce pollution prevention initiatives to achieve ambitious goals set by University of Michigan President, Mary Sue Coleman. Dr. Reddy has published about 30 papers and presented many invited lectures on varied topics.

**AnnMarie Sanford, Attorney – Pepper Hamilton, LLP**

Presentation: *Increasing State Regulation of Chemicals as a Driver of Sustainability*

AnnMarie Sanford is an attorney in the Environment and Energy Practice Group of Pepper Hamilton, LLP, resident in the Detroit office. Ms. Sanford is primarily engaged in environmental regulatory issues and has substantial experience in matters relating to chemicals regulation. Ms. Sanford graduated from Wayne State University Law School in 1990, cum laude, and she received a Bachelor of Science degree in chemical engineering from Wayne State University in 1986.

**Dawn Shiang, Associate Director, Sustainable Technologies, Research and Development – The Dow Chemical Company**

Presentation: *Sustainable Manufacturing at Dow: Designing and Building Processes and Supply Chains for a Sustainable Future*

Dawn Shiang is responsible for imbedding best sustainable practices into Dow's global early stage R&D product development and research. Dawn began her career as a process development chemist and later global leader of production support in the Agricultural Chemicals department. She has held a variety of leadership roles across many of Dow's business and corporate research teams, as well as diverse geographical experience with global responsibilities, including assignments in Europe and Asia. Her experience includes businesses and technologies such as Dow AgroSciences, New Products & Math Modeling, Dow Building Solutions, Specialty Films, Plastics, Asia-Pacific Corporate Research, Asia-Pacific Epoxy and Specialty Chemicals. She has recently returned from Shanghai where she was part of the leadership team that established a world-class research capability. Key contributions during this last assignment included business research responsibilities as well as establishing a solid foundation in Dow's Environmental, Health & Safety culture and practices across our new research organization. Dawn holds a bachelor's degree in chemistry and a doctorate in organic chemistry from the University of Missouri-St. Louis and was a post-doctoral fellow in bio-organic chemistry at The Pennsylvania State University. She is a co-author of several publications and holder of five patents.

**Matthew Shields, Energy Market Talent Manager – Workforce Development Agency, State of Michigan**

Presentation: *Driving Engineering Curriculum to Meet Industry Demand*

Matthew Shields serves as the Energy Market Talent Manager in the Workforce Development Agency, State of Michigan. Matthew has worked in the field of workforce development since 2006, where he has been responsible for organizing, convening, and facilitating the development and implementation of collaborative strategies to address workforce needs in various industry sectors. Matthew has been instrumental in the development of



sectoral alliances including the Michigan Academy for Green Mobility Alliance and the Utility Workforce Development Consortium. Current responsibilities include project management for Michigan's \$5.8 million State Energy Sector Partnership Grant and a \$4.3 million Department of Energy Grant for workforce development in the electric utility industry. Matthew is a certified Business Solutions Professional and a graduate of Central Michigan University.

**Andrew Smart, Director, Industry Relations & Business Development – SAE International**

Presentation: *Progress for Enhancing Sustainability Best Practices for SAE's Green Technology Committee*

Andrew Smart is the Director of Industry Relations & Business Development for SAE International with nearly 30 years of experience in the automotive and commercial vehicle industries. Andrew also serves as Director of SAE Automotive Headquarters in Troy, Michigan. Andrew joined SAE from Ricardo, Inc., where he was Vice President, Business Development and Marketing, and a member of their Executive Leadership Team. Prior to Ricardo, Andrew was head of Marketing and Sales with AVL Powertrain Inc. and held both commercial and technical positions with Tickford Engelhard, LLC (now part of BASF), Perkins Technology and DAF. British-born Smart holds a bachelor of engineering degree, is a Chartered Engineer, a Member of the Institution of Mechanical Engineers, a Member of SAE since 1997 and is a naturalized U.S. citizen.

**Christine Spitzley, Senior Environmental Planner – Tri-County Regional Planning Commission**

Presentation: *Michigan By-product Synergy*

Ms. Spitzley is responsible for coordinating the Michigan By-product Synergy (BPS) network. She has over 20 years of experience coordinating, developing, and implementing regional protection programs in mid-Michigan.

**Dr. Herman Yee, Global Technology Manager, DuPont Performance Coatings**

Dr. Herman Yee is the Global Technology Manager for electrodeposition primers with DuPont Performance Coatings at the Mt. Clemens, Michigan Laboratory. The company is the leading global manufacturer of advanced coating systems primarily for the transportation industry. With a consistently premium product, DuPont Performance Coatings is considered to be one of the highest quality paint providers in the auto refinish, OEM and liquid coatings market. The company operates manufacturing facilities and technical sites on six continents, serving customers in 120 countries. In his role as Global Technology Manager, Dr. Yee has led the research and product development efforts in the area of electrocoat anti-corrosion coatings for the global automotive OEM market since 2008. In total, Dr. Yee has over 15 years of experience in the automotive coatings industry, including leadership positions in the development programs for waterborne coatings and spray application processes. In addition, Dr. Yee has held Research & Development and Marketing positions in a variety of business units during his 23 years with DuPont. Dr. Yee received his BS in Chemical Engineering from Wayne State University and his PhD in Chemical Engineering from the University of Rochester. He serves on the Advisory Board of the Department of Chemical Engineering at Wayne State University.